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| APPLICATION NO. | FILING | DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|------------|------------|----------------------|---------------------|------------------|
| 10/716,901 | 11/18/2003 | | Bruce Faure | 4717-12500 | 7062 |
| 28765 | 7590 | 12/19/2005 | EXAMINER | | INER |
| WINSTON 1700 K STR | & STRAWN | KUNEMUND | KUNEMUND, ROBERT M | | |
| WASHINGTON, DC 20006 | | | | ART UNIT | PAPER NUMBER |
| | | | | 1722 | |

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | | |
|---|---|---|--|--|--|--|--|
| | 10/716,901 | FAURE, BRUCE | | | | | |
| Office Action Summary | Examiner | Art Unit | | | | | |
| | Robert M. Kunemund | 1722 | | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim fill apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | l. ely filed the mailing date of this communication. O (35 U.S.C. § 133). | | | | | |
| Status | | | | | | | |
| Responsive to communication(s) filed on 2a) ☐ This action is FINAL . 2b) ☑ This 3) ☐ Since this application is in condition for allowan closed in accordance with the practice under E | – action is non-final. nce except for formal matters, pro | | | | | | |
| Disposition of Claims | | | | | | | |
| 4) Claim(s) 1-25 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) 1-25 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or Application Papers 9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access | election requirement. c. epted or b)□ objected to by the E | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | 4) Interview Summary (Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other: | te | | | | | |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 to 4, 7 to 9, 11, 14 to 17, 19 to 23, 25 and 26 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Goesele et al (6,150,239).

The Goesele et al reference teaches a method of separating a layer form a substrate, note entire reference. A substrate, which can be diamond, silicon, or III-V materials, is placed in a chamber and an eptiaxial layer is grown, note col. 3 lines 10-30. The epitaxial layer can be the same as the substrate or different materials and composed of materials similar to the substrate, note col. 3 lines 40-50. There can also be a silicon oxide layer on the substrate prior to the epitaxial growth. The layer can also be multi-layers. The structure is then treated with a hydrogen implant to a level in the substrate. The structure is then annealed and the epitixal layer is separated with some of the substrate, note examples,

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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Claims 5, 6, 10, 12, 13, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goesele et al.

The Goesele et al reference is relied on for the same reasons as stated, supra, and differs from the instant claims in the specific implant step and layer thickness. However, in the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to determine through routine experimentation the optimum, operable implanting steps and layer thickness in the Goesele et al reference in order to create the desired defect layer in the substrate and thickness of the layers so that during separation there is no breaking of the wanted structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Kunemund whose telephone number is 571-272-1464. The examiner can normally be reached on 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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RMK

ROBERT KUNEMUND PRIMARY EXAMINER